

Title (en)

A method for treating contact leads on electrochemical cells so as to achieve improved hermeticity and hermetically sealed electrochemical cells derived therefrom.

Title (de)

Methode zur Behandlung von Kontaktanschlüssen an elektrochemischen Zellen, zur Erzielung verbesserter Dichtheit, und hermetisch verschlossene elektrochemische Zellen die damit hergestellt sind

Title (fr)

Une méthode pour traiter les fiches de contact de cellules électrochimiques pour obtenir 1 herméticité accrue et cellules électrochimiques hermétiquement scellées

Publication

EP 1039563 A1 20000927 (EN)

Application

EP 00302332 A 20000322

Priority

US 12563899 P 19990322

Abstract (en)

The present invention provides a method of hermetically sealing an electrochemical cell (10). In the disclosed method, a coating of an adhesive composition is applied to an external metal tab (30, 30<1>) that serves as a contact lead from the cell (10) to a device within which the cell (10) is employed. The adhesive coats and hermetically seals the tab surface thereby. The coating process can be executed by directly heat-sealing an adhesive film onto the tab surface. Alternatively, an aqueous suspension of the adhesive composition can be sprayed onto the tab surface, or the tab may be roll coated in the composition and thereafter subjected to heat treatment, causing the adhesive to melt and flow. The coated tab (30, 30<1>) is thereafter welded to a corresponding current collector in the form of a metal foil. The complete cell assembly (10) is heat-sealed in a final closure sealing member (16) such that the sealed tabs (30, 30<1>) extend therethrough. <IMAGE>

IPC 1-7

H01M 2/02; H01M 2/06; H01M 2/26

IPC 8 full level

H01M 50/119 (2021.01); **H01M 50/121** (2021.01); **H01M 50/128** (2021.01); **H01M 50/129** (2021.01); **H01M 50/178** (2021.01);
H01M 50/184 (2021.01); **H01M 50/193** (2021.01); **H01M 50/55** (2021.01); **H01M 50/553** (2021.01); **H01M 50/562** (2021.01)

CPC (source: EP US)

H01M 50/119 (2021.01 - EP US); **H01M 50/121** (2021.01 - EP US); **H01M 50/128** (2021.01 - EP US); **H01M 50/129** (2021.01 - EP US);
H01M 50/178 (2021.01 - EP US); **H01M 50/184** (2021.01 - EP US); **H01M 50/193** (2021.01 - EP US); **H01M 50/55** (2021.01 - EP US);
H01M 50/553 (2021.01 - EP US); **H01M 50/562** (2021.01 - EP US); **H01M 50/124** (2021.01 - EP); **Y02E 60/10** (2013.01 - EP);
Y02P 70/50 (2015.11 - EP)

Citation (search report)

[A] US 4822377 A 19890418 - WOLFF MERLE [US]

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1039563 A1 20000927; EP 1039563 B1 20030730; AT E246400 T1 20030815; CN 1168169 C 20040922; CN 1291802 A 20010418;
DE 60004118 D1 20030904; DE 60004118 T2 20040715; DK 1039563 T3 20031110; ES 2203400 T3 20040416; MY 127272 A 20061130;
PT 1039563 E 20031031; TW 451517 B 20010821

DOCDB simple family (application)

EP 00302332 A 20000322; AT 00302332 T 20000322; CN 00107046 A 20000322; DE 60004118 T 20000322; DK 00302332 T 20000322;
ES 00302332 T 20000322; MY PI20001133 A 20000322; PT 00302332 T 20000322; TW 89105278 A 20000621